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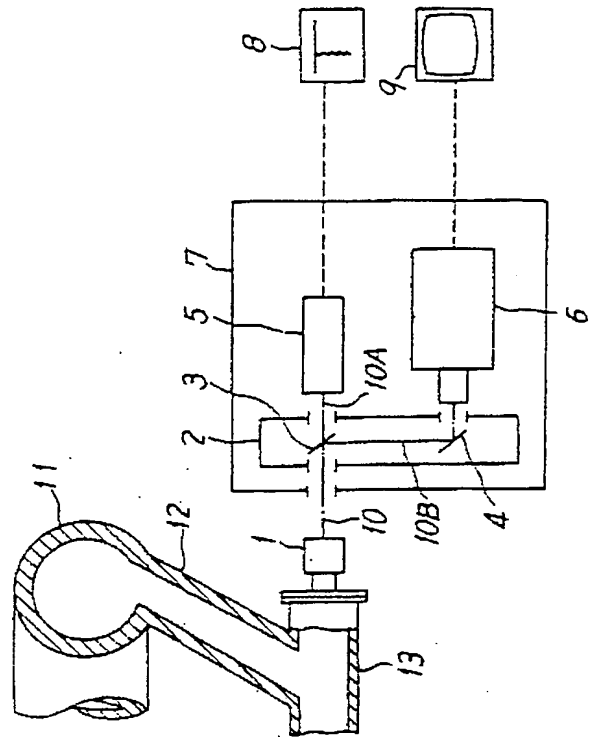
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TITLE : APPARATUS FOR MONITORING
CONDITION IN FRONT OF BLAST
FURNACE TUYERE



ABSTRACT : PURPOSE: To provide the titled apparatus for monitoring which permits visual checking of the condition of the combustion zone in a blast furnace by optical detection without disturbance by constituting the apparatus in such a way that the exit light of the combustion zone in the furnace emerging from a peep window is split by half-mirror and is detected by an optical sensor and the reflected light is monitored by a television camera.

CONSTITUTION: Light 10 emitted through a tuyere peep window 1 of a blast furnace is passed through holes opened in a case 7 and a housing 2 to a half mirror 3, by which the light is split to the light 10A transmitting the mirror 3 and the light 10B reflected by the mirror 3. The transmitted light 10A is made incident light on an optical sensor 5 and the reflected light 10B is reflected by a refelction mirror 4 and is thus made incident light on a television camera 6. More specifically, the sensor 5 and the camera 6 observe the same light 10. Simultaneous measurement and simultaneous monitoring are thus made possible. The measurement and monitoring are executed by, for example, recording the output signal from the sensor 5 with a recorder 8 and monitoring the video on the camera 6 with a monitor 9.

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